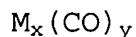


AMENDMENTS IN THE CLAIMS

1. (Previously Presented) A method of performing a one-pot organic reaction, which includes carbon monoxide as reactant without the use of an external CO gas source, comprising

preparing a reaction mixture containing a non-catalysing solid CO releasing compound which is a metal carbonyl of the general formula I,



wherein M is a metal, x is an integer, y is an integer, a non-metal substrate compound and a metal catalyst; wherein the metal carbonyl is not complexed with or bonded to the non-metal substrate prior to preparing said reaction mixture; and

exposing said reaction mixture to an energy source to release carbon monoxide from the CO releasing compound, wherein carbon atoms of the released carbon monoxide form a bond with the non-metal substrate compound.

3. (Previously Presented) A method of performing a one-pot organic reaction, which includes carbon monoxide as reactant without the use of an external CO gas source, comprising preparing a reaction mixture containing a non-catalysing CO releasing compound which is a formamide of the general formula II,



wherein R_1 and R_2 independently can be H, or an optionally substituted, linear or branched alkyl, aryl or alkylaryl, a non-metal substrate compound and a metal catalyst; and

exposing said reaction mixture to an energy source to release carbon monoxide from the CO releasing compound,

wherein carbon atoms of the released carbon monoxide form a bond with the non-metal substrate compound.

4. (Original) The method according to claim 3, wherein R_1 and R_2 independently are a C_{1-6} alkyl group or H.

5. (Previously Presented) The method according to any of the preceding claims wherein the reaction mixture in addition to the non-metal substrate compound also contains an organic reactant.

6. (Previously Presented) The method according to claim 5, wherein the organic reactant is selected from the group consisting of amines, alcohols, thiols, hydrides, alkenes, alkynes, boric acids, boronic acids, carboxylate ions, malonate-type ions, enolate-type ions, azide ions, cyanide ions, halide ions, phosphines R_3P wherein R_3 is aryl, heteroaryl ~~and~~ or alkyl, metal-organic compounds.

7. (Previously Presented) The method according to claim 1, wherein M is selected from Mo, W, Mn, Cr, and Co.

8. (Previously Presented) The method according to claim 1, wherein the metal carbonyl is selected from the group consisting of $\text{Mo}(\text{CO})_6$, $\text{W}(\text{CO})_6$, $\text{Mn}_2(\text{CO})_{10}$, $\text{Cr}(\text{CO})_6$, and $\text{Co}_2(\text{CO})_8$ or derivatives thereof.

9. (Previously Presented) The method according to any claim 1, wherein the metal carbonyl is used in amounts of 0.1 to 10,000,000 molar equivalents.

10. (Original) The method according to claim 3, wherein the formamide is used in amounts of 0.1 to 10,000,000 molar equivalents.

11. (Original) The method according to claim 1, wherein the energy source raises the temperature of the reaction mixture to at least 100°C , preferably at least 130°C , most preferably at least 150°C .

12. (Original) The method according to claim 1, wherein the metal catalyst is selected from the group consisting of Pd^0 , Pd^{II} ,

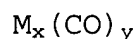
Pd^{IV} , Pt^0 , Pt^{II} , Pt^{IV} , Ni^0 , Ni^{I} , Ni^{II} , Ni^{III} , Rh^0 , Rh^{I} , Rh^{II} , Rh^{III} , Co^0 , Co^{I} , Co^{II} , Co^{III} , Ir^0 , Ir^{I} , Ir^{II} and Ir^{III} species.

13. (Original) The method according to claim 1, wherein the metal catalyst is present in molar equivalents of at most 0.9, preferably at most 0.5, such as 0.5-0.02 molar equivalents.

14. (Original) The method according to claim 1, wherein the non-metal substrate is covalently bound to a polymer.

15. (Previously Presented) A method of preparing chemical libraries comprising

preparing a reaction mixture containing a non-catalysing solid CO releasing compound, which is a metal carbonyl of the general formula I,



wherein M is a metal, x is an integer, y is an integer, a non-metal substrate compound and a metal catalyst, wherein the metal carbonyl is not complexed with or bonded to the non-metal substrate prior to preparing said reaction mixture, and

exposing the reaction mixture to an energy source to release carbon monoxide from the CO releasing compound,

wherein the carbon atoms of the released carbon monoxide form a bond with a non-metal substrate compound.

17. (Previously Presented) A method of preparing chemical libraries comprising preparing a reaction mixture containing a non-catalysing liquid CO releasing compound, which is a formamide of the general formula II,

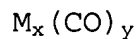


wherein R_1 and R_2 independently can be H, optionally substituted, linear or branched alkyl, aryl or alkylaryl, a non-metal substrate compound and a metal catalyst; and

exposing the reaction mixture to an energy source to release carbon monoxide from the CO releasing compound, wherein the carbon atoms of the released carbon monoxide form a bond with the non-metal substrate compound.

18. (Original) The method according to claim 1 or 15, wherein the energy source is selected from the group consisting of thermal energy, sonic energy, ultraviolet irradiation, microwave energy, and radiofrequency.

19. (Currently Amended) A kit for organic reactions comprising ~~including CO as reactant comprising a selection of one or more solid or liquid~~ a non-catalysing solid CO releasing compound which is a ~~compounds, selected from~~ metal carbonyl ~~carbonyls~~ of the general formula I,



wherein M is a metal, x is an integer, y is an integer, ~~or~~
~~formamides of the general formula II,~~



~~wherein R₁ and R₂ independently can be H, optionally~~
~~substituted, linear or branched alkyl, aryl or alkylaryl.~~

20. (Original) The method according to claim 7, wherein M is
Mo or Cr.

21. (Original) The method according to claim 20, wherein M is
Mo.

22. (Original) The method according to claim 8, wherein the
metal carbonyl is Mo(CO)₆, or Cr(CO)₆.

23. (Original) The method according to claim 22, wherein the
metal carbonyl is Mo(CO)₆.

24. (Original) The method according to claim 9, wherein the
metal carbonyl is used in amounts of 0.1 to 1000 molar equivalents.

25. (Original) The method according to claim 24, wherein the metal carbonyl is used in amounts of suitably 0.20 to 100 molar equivalents.

26. (Original) The method according to claim 25, wherein the metal carbonyl is used in amounts of 0.25 to 5 molar equivalents.

27. (Original) The method according to claim 26, wherein the metal carbonyl is used in amounts of 0.3 to 0.6 molar equivalents.

28. (Original) The method according to claim 10, wherein the formamide is used in amounts of 1 to 1,000 molar equivalents.

29. (Original) The method according to claim 28, wherein the formamide is used in amounts of 1 to 100 molar equivalents.

30. (Original) The method according to claim 29, wherein the formamide is used in amounts of 5 to 50 molar equivalents.

31. (Original) The method according to claim 11, wherein the energy source raises the temperature of the reaction to at least 130°C.

32. (Original) The method according to claim 31, wherein the energy source raises the temperature of the reaction to at least 150°C.

33. (Original) The method according to claim 13 wherein the metal catalyst is present in molar equivalents of at most 0.5.

34. (Original) The method according to claim 33, wherein the metal catalyst is present in molar equivalents of at most 0.5-0.02.

35. (Original) The method according to claim 18, wherein the energy source is preferably thermal energy or microwave energy.

36. (Original) The method according to claim 35, wherein the energy source is microwave energy.